

REMARKS

INTRODUCTION

In view of the following, reconsideration of the allowability of the claims is respectfully requested.

Thus, claims 1-21 are pending and under consideration.

REJECTION UNDER 35 USC 102

Claims 17-20 stand rejected under 35 USC § 102(e) as being anticipated by Johanson, U.S. Publication 2004/0032739. This rejection is respectfully traversed.

The Office Action indicates that Johanson discloses all the claimed features of independent claim 17. Applicants respectfully disagree.

It is respectfully submitted that Johanson at least fails to disclose the claimed intercepting unit reflecting a portion of the light emitted from the lamp light source toward the reflector.

Johanson, in relied upon FIG. 5, illustrates first and second reflectors, with a light tube being inserted through a back of the two reflectors, such that light is reflected from a light source in the light tube outwardly from both reflectors. As illustrated in FIG. 5, light is reflected outwardly from both reflectors. As further illustrated in FIG. 5, light from the light source is not reflected off of the second reflector 50 toward the first reflector 40.

Thus, the second reflector 50 of Johanson cannot be considered an "intercepting unit" nor does the second reflector 50 reflect a portion of the light emitted from the lamp toward the first reflector 40.

Further, it is noted that the Office Action relies upon paragraph 31 of Johanson, to disclose the reflection by second reflector 50, as relied upon by the Office Action. However, this paragraph in Johanson is referencing FIGS. 3 and 4 of Johanson, which is describing a completely different arrangement, conventional to Johanson, i.e., one without a second reflector. Further, this portion of Johanson similarly fails to disclose or suggest the claimed reflection of light from an intercepting unit toward the reflector.

In addition, it is respectfully submitted that it would not have been obvious to modify Johanson to have the same, as the underlying purposes of the "intercepting unit" and the second reflector 50 of Johanson are completely different.

Therefore, for at least the above, it is respectfully requested that this rejection of claims 17-20 be withdrawn and claims 17-20 be allowed.

Claim 21 stands rejected under 35 USC § 102(b) as being anticipated by Kurtz et al., U.S. Patent No. 6,577,429. This rejection is respectfully traversed.

By way of review and as an example, independent claim 21 sets forth:

“[a] projection system comprising:

a first reflecting mirror;

a second reflecting mirror; and

a display device provided in the surface of the first reflecting mirror;

wherein the second reflecting mirror receives light reflected from the first reflecting mirror and reflects the received light toward the display device.”

The Office Action sets forth that Kurtz et al. discloses all the claimed features of independent claim 21.

However, it is respectfully submitted that Kurtz et al. at least fails to disclose or suggest the claimed display device provided in the surface of the first reflecting mirror, or wherein the second reflecting mirror receives light reflected from the first reflecting mirror and reflects the received light toward the display device.

The Office Action sets forth that, in Kurtz et al., the first reflecting mirror corresponds to mirror 280, the second reflecting mirror corresponds to mirror 285, and that col. 19, lines 4-13, support the interpretation of mirror 280 having the claimed display device, with the claimed mirror 285 reflecting light, from mirror 280, back toward the display device. Applicants respectfully disagree with this interpretation of Kurtz et al.

FIG. 10 of Kurtz et al., in which the mirror 280 and a “stop” 285 are illustrated, clearly illustrates only mirror 280 and stop 285, and fails to disclose or suggest the claimed display device in the surface of the first reflecting mirror “wherein the second reflecting mirror receives light reflected from the first reflecting mirror and reflects the received light toward the display device.”

In the corresponding portions of Kurtz et al., in col. 19, lines 4-13, Kurtz et al. only sets forth mirror 280 may be a micro-mechanical mirror array where “[i]ndividual pixels are formed by micromirrors that either direct light through aperture 290 of the projection lens 205, or toward a stop 285 (i.e., a Schlieren optical system). Pixel brightness is controlled by selecting the proportion of time within a frame that light is directed through the lens aperture 290.”

Thus, element 285 in Kurtz et al. is not a mirror that would reflect back to mirror 280, and accordingly, Kurtz et al. cannot disclose the claimed second reflecting mirror nor the claimed reflecting of light back to a display device in the first reflecting mirror.

In addition, FIG. 10 of Kurtz et al. can only be interpreted as disclosing either a display device 280 and the stop 285, or a first mirror 280 and the stop 285.

Here, even taking the improper interpretation of stop 285 reflected light back to mirror 280, with the first potential interpretation, Kurtz et al. would still fail to disclose or suggest the first mirror reflecting light to the stop 285 and including the display device, and with the second potential interpretation, Kurtz et al. still fails to disclose or suggest that the first mirror, which reflects light to the stop 285, comprises the display device in the surface of the first mirror.

Using the same improper interpretation of stop 285, if the Office Action is interpreting the first mirror 280 as corresponding to the claimed first reflecting mirror having the display device provided therein, or as corresponding to both features, it is respectfully submitted that this is similarly not a possible interpretation.

If the micro-mechanical mirror array 280 is interpreted as the first reflecting mirror, then which ever mirror in the micro-mechanical mirror array 280 that reflects a light beam to the stop 285 would similarly have to further include a display device for receiving light reflected from the stop 285, again taking the improper interpretation of stop 285 reflecting light. This is also not possible. Within each mirror of the micro-mechanical mirror array there is no further included display device.

Independent claim 21 particularly sets forth two distinct features, the first reflecting mirror reflecting light to the second reflecting mirror and the display device within the first reflecting mirror receiving light reflected from the second reflecting mirror. Thus, further to the above, the first reflecting mirror and the display device cannot be the same feature/element. The interpreted mirror 280 can correspond to either a first reflecting mirror or a display system, but not both.

Lastly, as noted above, in actuality, Kurtz et al. sets forth a different arrangement from the claimed invention. The illustrated arrangement in FIG. 10 of Kurtz et al. discloses light reflecting off separate mirrors in the micro-mechanical mirror array 280 to either stop 285 or through aperture 290. Kurtz et al. does not disclose or suggest the claimed first reflecting mirror having the display device therein or the second reflecting mirror reflecting light from the first reflecting mirror to the display device.

Therefore, it is respectfully requested that this rejection of claim 21 be withdrawn and claim 21 be allowed.

REJECTION UNDER 35 USC 103

Claims 1 and 10-16 stand rejected under 35 USC § 103(a) as being obvious over Kurtz et al., in view of Choi, U.S. Patent No. 6,457,830. This rejection is respectfully traversed.

In view of the above, it is again respectfully submitted that Kurtz et al. fails to disclose or suggest the claimed first reflecting mirror, comprising the display device, reflecting light to the claimed second reflecting mirror which reflects light to the display device.

In addition, briefly it is noted that the Office Action sets forth that Kurtz et al. discloses all the claimed features of claims 1 and 10-16 except the claimed color filter separating light emitted from the lighting system, and thereafter relies on Choi to disclose the claimed color filter, stating that it would have been obvious to modify Kurtz et al. to include the color filter of Choi to form a uniform light beam.

It is respectfully submitted that this motivation fails to meet a prima facie obviousness standard. There is no evidence in the record that Kurtz et al. would not already have a sufficiently uniform light beam (especially considering Kurtz et al. uses a laser beam), that Kurtz et al. needs the same, or how or if the same could be incorporated into Kurtz et al. Again, noting that Kurtz et al. is directed to a laser based system, it is respectfully submitted that the outstanding motivation rationale is not appropriate.

In addition, there is no objective evidence in the record that supports the conclusion that there is any need or desire for modifying Kurtz et al. as suggested in the Office Action.

MPEP § 2142 states that "[w]hen the motivation to combine the teachings of the references is not immediately apparent, it is the duty of the Examiner to explain why the combination of the teachings is proper." The Examiner is required to present actual evidence and make particular findings related to the motivation to combine the teachings of the references. In re Kotzab, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000); In re Dembiczak, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

Broad conclusory statements regarding the teaching of multiple references, standing alone, are not "evidence." Dembiczak, 50 USPQ2d at 1617. "The factual inquiry whether to combine the references must be thorough and searching." In re Lee, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002) (citing McGinley v. Franklin Sports, Inc., 60 USPQ2d 1001, 1008 (Fed. Cir. 2001)). The factual inquiry must be based on objective evidence of record, and cannot be based on subjective belief and unknown authority. Id. at 1433-34. The Examiner must explain the reasons that one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious. In re Rouffet, 47

USPQ2d 1453, 1459 (Fed. Cir. 1998).

The Examiner bears the burden of establishing a prima facie case of obviousness based upon the prior art..."[the Examiner] can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references." In re Fritch, 23 USPQ 2d 1780, 1783 (Fed. Cir. 1992).

Thus, in view of the above, it is respectfully submitted both that a prima facie obviousness case has not been met and that even if modified as proffered the combination of Kurtz et al. and Choi would not disclose the presently claimed invention.

Therefore, for at least the above, it is respectfully requested that this rejection of claims 1 and 10-16 be withdrawn and claims 1 and 10-16 be allowed.

Claims 2-9 stand rejected under 35 USC § 103 as being obvious over Kurtz et al., in view of Choi and Johanson. This rejection is respectfully traversed.

As noted above, Johanson fails to disclose or suggest the claimed reflector reflecting light emitted from a lamp light source and an intercepting unit reflecting a portion of the light emitted from the lamp light source toward the reflector.

Accordingly, it is respectfully submitted that any combination of Johanson with Kurtz et al. and/or Choi similarly would fail to disclose the presently claimed invention.

In addition, the recited motivation for incorporating the reflectors of Johanson into the combination of Kurtz et al. and Choi was for "reflecting additional light into the illumination tube."

However, as noted above, Kurtz et al. utilizes a laser system, not an illumination tube. Further, Choi would not appear to utilize an illumination tube. Further, there would not appear to be any recited rationale for modifying the combination of Kurtz et al. and Choi to include the same. Lastly, similar to above, it is respectfully submitted that the outstanding motivation is insufficient for a prima facie obviousness case. There is no objective support in the record that the either Kurtz et al. or Kurtz et al. and Choi would need or desire either the illumination tube or additional light reflected as performed by Johanson.

Therefore, for at least the above, it is respectfully requested that this rejection of claims 2-8 be withdrawn and claims 2-8 be allowed.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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Date: April 28, 2005

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